

# Wanapum Dam Spillway Fracture

May 20, 2014

- 
- Summary of incident
  - Current status
  - Questions

# Normal Operation

- 10 Generating Units
- 1070 MW capacity
- Min/Max Forebay Elevation: 562 – 571ft
- 80 ft Head
- 12 Spillway tainter gates, 1 sluice gate
- 2 Fish Ladders, 1 Fish Bypass

## WANAPUM DAM (looking east from the right bank on the spillway deck)



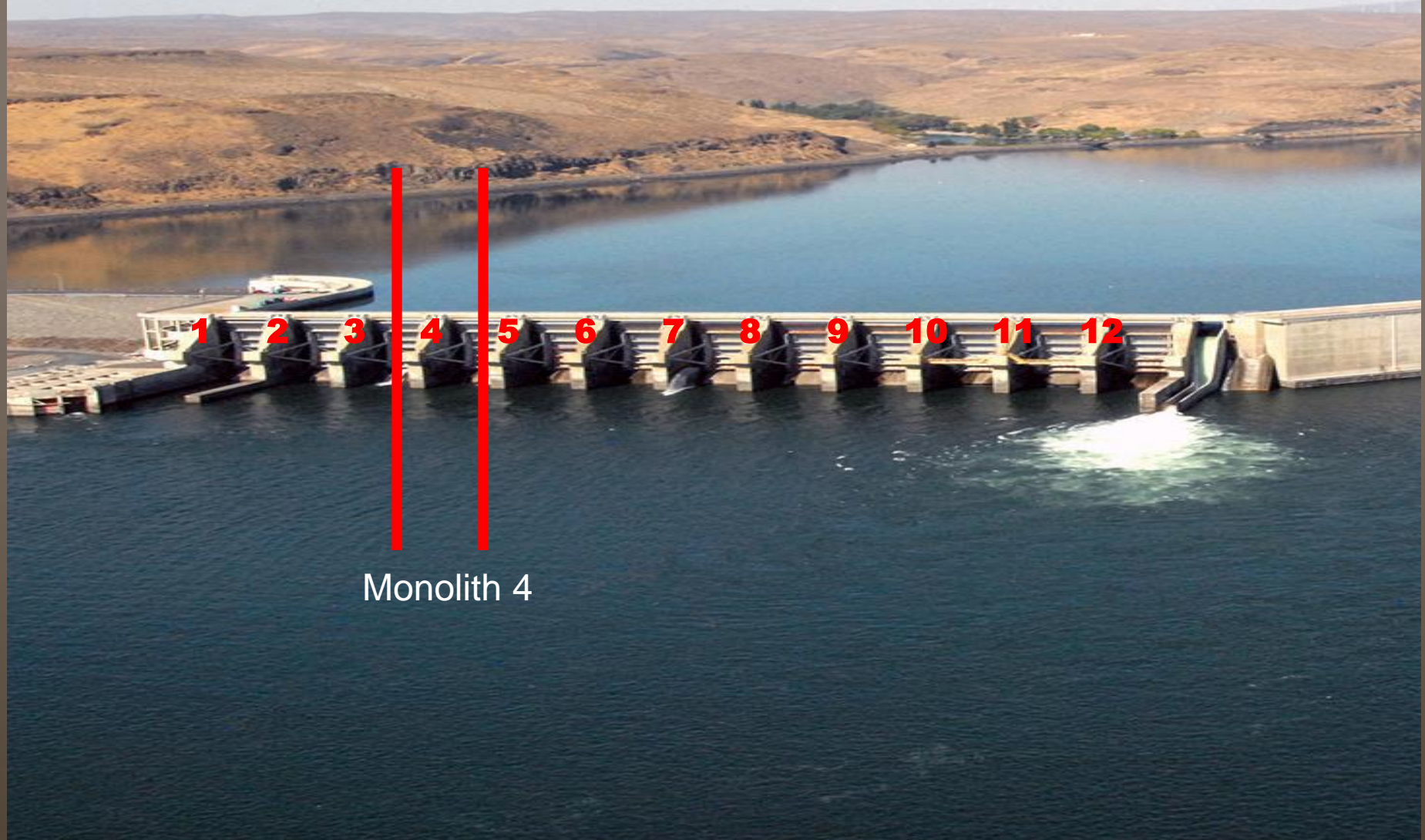
## Spillway Deck, looking east



# Timeline

- Wednesday 2/26 Problem Identified - FERC ORDER: Reduce Forebay Elevation and TG #3 & #4.
- Thursday 2/27 FOREBAY: Fracture confirmed
- Friday 2/28 EA (Potential Failure) declared

## WANAPUM DAM (looking upstream)



Monolith 4



# Response and Recovery Plan

- Goal 1 – Stabilize spillway monolith 4
- Goal 2 – Investigate root cause
- Goal 3 – Intermediate pool raise
- Goal 4 – Restoration of: a) pool & b) spillway
- Goal 5 – Temporary mitigation; manage threats & opportunities
- Goal 6 – Plant maximization & preservation
- Goal 7 – Work priorities
- Goal 8 – Financial Management / Cost Tracking

# Teamwork

High level of communication, coordination and cooperation exists.

# Impact Of Achieving GOAL 1 – Stabilize spillway monolith 4

Normal pool elevation



Reservoir Lowered  $\approx$  28 feet





## G2 – Investigate Root Cause

- Independent Board of Consultants (BOC)
- Independent Forensic Investigation Team (HDR)

## G3 – Intermediate Pool Raise

- Major focus in place for partial restoration of forebay level to at least minimum operating levels
- Board of Consultants / FERC identified critical questions to answer before any pool raise

G4 – Restoration of Pool  
& Spillway

G5 – Temporary Mitigation,  
Manage Threats &  
Opportunities



G6 – Plant Maximization &  
Preservation

G7 – Work Priorities

G8 – Financial Management /  
Cost Tracking

# Current Status

- Wanapum Dam is at a safe operating condition
- Response and Recovery Goals identified with work teams in place.
- General Manager initially declared an emergency - allowing a rapid response to investigation, design, and repairs.
- Emergency Action Plan reduced to condition C
- Safety and Security are daily goals

# Current Status, cont'd

- Monitoring continues
- Independent Board of Consultants work and Independent Forensic Analysis continue
- Root Cause Investigation nearly complete
- Communications with FERC, stakeholders continues

# QUESTIONS?